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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,689	04/07/2005	Ulrich Weber	LO29-023	6899
21567	7590	02/28/2006	EXAMINER	
WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			MARTINEZ, JOSEPH P	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/530,689	Applicant(s) WEBER ET AL.	
	Examiner Joseph P. Martinez	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 10 and 12-14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7-11-05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9, 11 and 15 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Ikeda (5638223).

Re claim 1, Ikeda teaches for example in fig. 2-4, an objective, which is assembled from a number of individual housing structures (41, 42, 43, 44, 45, 46), optical elements being arranged in each housing structure (col. 5, ln. 38-61), wherein at least one first housing structure (48) is provided with seats (32a in conjunction with 34) on which one or more further housing structures (41, 42, 43, 44, 45, 46) are adjusted (col. 5, ln. 9-11) and are connected to said first housing structure (col. 6, ln. 10-12).

Re claim 2, Ikeda further teaches for example in fig. 2-4, at least one of said seats (32a in conjunction with 34) are provided for the purpose of adjusting and mounting (col. 5, ln. 9-11) of at least one optical element or optical subassembly (44) in said first housing (48).

Re claim 3, Ikeda further teaches for example in fig. 2-4, the objective is a projection objective in microlithography (col. 1, ln. 14) for producing semiconductor components (wherein the office interprets the claimed limitation to be intended use and is not given patentable weight).

Re claim 4, Ikeda further teaches for example in fig. 2-4, a number of optical axes (AX1, AX2, AX3) being formed by said housing structures.

Re claim 5, Ikeda further teaches for example in fig. 2-4, said seats are provided on external surfaces of said first housing structure (wherein the office interprets the seats of 42, 43, 46 and 47 to be on external surfaces of 48 and therefore teach the claimed limitation).

Re claim 6, Ikeda further teaches for example in fig. 2-4, provided as said external surfaces is at least one first seat that runs at an angle of less than 30 degrees, in particular at least approximately parallel, to a first optical axis (wherein the office interprets the seat of 42 to be on an external surface and parallel with AX2 and therefore teach the claimed limitation).

Re claim 7, Ikeda further teaches for example in fig. 2-4, provided as said further external surfaces are two mutually parallel seats (col. 4, ln. 54-59) which lie at an angle of less than 30degrees, in particular at least approximately parallel, to a further optical

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axis (wherein the office interprets the seats of 43 to be on an external surface and parallel with AX3 and therefore teach the claimed limitation).

Re claim 8, Ikeda further teaches for example in fig. 2-4, said first seat is arranged at least approximately perpendicular, at an angle of greater than 60 degrees to the mutually parallel seats (wherein the office interprets the seat of 42 to be parallel with AX2 and the seats of 43 to be parallel with AX3, and therefore perpendicular, thereby teaching the claimed limitations).

Re claim 9, Ikeda further teaches for example in fig. 2-4, a fourth seat (seat of 46) is provided at an angle to said first seat and to the two mutually parallel seats (wherein the office interprets the seat of 46 to be at an angle with respect to the seat of 42 and the seats of 43 and therefore teaches the claimed limitation).

Re claim 11, Ikeda further teaches for example in fig. 6A and 6B, said second housing structure (42) is provided with at least one seat (72a-c in conjunction with 73a and 73b) on which one or more further optical elements (lenses within 42) arranged in substructures, or subassemblies of optical elements are adjusted and connected to said second housing structure (col. 5, ln. 9-11).

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Re claim 15, Ikeda further teaches for example in fig. 1, a projection exposure machine (fig. 1) for producing semiconductor components (wherein the office interprets the claimed limitation to be intended use and is not given patentable weight).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda (5638223).

Re claim 16, supra claim 15. Furthermore, Ikeda teaches for example in fig. 1, a light (S).

But, Ikeda fails to explicitly teach the light with a wavelength of less than 360 nm.

However, Ikeda teaches for example in fig. 1, varying the source of light (col. 4, ln. 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ikeda with a light source with a wavelength of less than 360 nm in order to provide proper illumination for a mask.

Allowable Subject Matter

Claims 10 and 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art taken alone or in combination fails to anticipate or fairly suggest the limitations of the claims, in such a manner that a rejection under 35 USC 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in dependent claim 10.

Specifically regarding claim 10, Ikeda (5638223) teaches the state of the art of an objective.

But, Ikeda fails to explicitly teach a combination of all the claimed features including said fourth seat is arranged at an angle of 45 +/- 15 degrees to the first seat and to said two mutually parallel seats, and wherein arranged on said fourth seat is a deflecting mirror for producing a third optical axis for a second housing structure, as claimed.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph P. Martinez whose telephone number is 571-272-2335. The examiner can normally be reached on M-F 7:00 AM to 3:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
2-17-06



Handwritten signature of H. J. Mack, with a rectangular stamp below it containing the text "Ricky Mack" and "Patent Examiner".